

Application No: 10/790,383
Amendment dated June 27, 2006
Reply to Office Action Dated March 27, 2006

Attorney Docket No: 3926.070

IN THE CLAIMS:

The following listing of claims replaces any earlier listing:

1-5. (cancelled)

6. (currently amended) A process for laser beam welding a plate, with ~~pre- and/or post-thermal treatment in the area of the weld seam, with a laser beam with substantially constant output for both the welding and thermal treatment,~~ comprising

welding a surface of the plate with a laser beam to form a weld seam, and

carrying out a ~~pre- and/or post-~~ thermal treatment in the area of the weld seam with the same laser beam by guiding ~~said the~~ laser beam over ~~said the~~ surface prior to and/or after ~~said the~~ welding,

wherein the laser beam has substantially constant output for both the welding and the thermal treatment.

wherein ~~said the~~ welding and ~~the~~ thermal treatment are separated timewise from each other in such a manner that the temperature reduction of the respective ~~illuminated~~ radiated surface from the point in time of the first ~~illumination~~ radiation to the point in time of the subsequent ~~illumination~~ radiation is less than 50%, and

wherein during the thermal treatment the laser energy input, based on the ~~illuminated~~ radiated surface area and time, is adjusted by ~~defocusing the laser beam and/or~~ increasing the rate of advance in such a manner that the side of the existing or to-be-formed weld seam opposite to the laser beam is warmed by at least 10°C.

7. (previously presented) The process according to Claim 6, wherein the laser beam is guided along the surface via a scanner device.

8-9. (cancelled)

Application No: 10/790,383
Amendment dated June 27, 2006
Reply to Office Action Dated March 27, 2006

Attorney Docker No: 3926.070

10. (previously presented) The process according to Claim 6, wherein during the thermal treatment the laser beam is guided in such a manner that a transverse movement component is superimposed over its main direction of advance.
11. (previously presented) The process according to Claim 10, wherein said transverse movement component is a circular movement component.
12. (previously presented) The process according to Claim 6, wherein welding and thermal treatment occur alternatingly in the manner of a step seam.